ZEOTEC Hellas Group

Safety data sheet

According to Regulation (EC) No 1272/2008
Version 2 Date of issue 01 / 03 / 2018

Section 1: Identification of the substance/preparation and of the company/undertaking

1.1 Product identifier

Trade name: ZEO CARBON

1.2 Use of the substance / mixture

Cleaning liquid of carbon residue

1.3 Details of the supplier of the safety data sheet

ZEO TEC HELLAS GROUP IKE
SPARTIA AREA, SESKLO VOLOS
TEL. : 2421095212
FAX: 2421095212
Postcode : 38500
E-mail: Zthellasgroup@gmail.com

1.4 Emergency telephone number

210 -7793777

2. Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008
Skin corrosion (Category 1A), H314

2.2 Label information

Pictogram

Signal word: Danger

Hazards statement(s)(recognized)

H314: Causes serious skin burns and eye injuries.

Precautionary statement(s)

P 102: Away from children.
P 405: Keep it locked
P 280: Wear protective gloves / protective clothing / personal protective equipment for the eyes/face.
P 301 + P 330 + P 331: IF SWALLOWED: Rinse mouth. Do not induce vomiting.
P 303 + P 361 + P 353: IN CASE OF SKIN (OR HAIR) CONTACT: Remove immediately all contaminated clothing. Rinse the skin with water / have a shower.
P 305 + P 351 + P 338: IN CASE OF EYE CONTACT: Rinse thoroughly with water for several minutes. If there are contact lenses, remove them, if it is easy. Keep rinsing.
P 309 + P 311: IN CASE OF EXPOSURE OR ILLNESS: Call the **Emergency telephone number** or a doctor.

2.3 Other hazards

No other risks are known.
The product does not meet the criteria to be considered as either persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) with the requirements of Regulation No 1907/2006 (EC), ANNEX XIII.

3. Composition/information on ingredients

3.1 Recommendation preparation

Hazardous ingredients

CAS No / EC	Ingredient(s)	NUMBER REACH	Classification according to 1272/2008/EC	Concentration
10213-79-3	Sodium metasilicate	01-2119449811-37	H314: Skin Corr./Irrit. 1B Eye Dam./ Irritat. 1 H335: STOT SE. 3 H290: Metal Corr. 1	0 % - 5%
939-625-7	Alkane C6-C8 (even numbered), 1-sulphonic acid, sodium salt	01-2119985168-23	Skin Corr. / Irrit. 2 Eye Dam. / Irrit. 2, H319, H315	0% - 5%
160901-19-9	Alcohols, C12-13-branched and linear, ethoxylated		Acute Tox .4 (oral), H302 Eye Dam. / Irrit. 1, H318 Aquatic chronic 3, H412	0% - 5%
111-76-2	2 butoxyethanol	01-2119475108-36	Acute Tox. 4 Skin Irrit. 2 Eye Irrit. 2 H302, H312, H332, H315, H319	5 % - 15 %
61789-40-0	Alkylamidopropyl betaine	01-2119513359-38	Eye Dam. 1, H318 Aquatic Chronic 3, H412	0% - 5%

4. First aid

4.1 Description of first aid measures

In case of inhalation: In case of fainting it is necessary to lie down and transfer to a firm lateral position.
In case of skin contact:
Immediately rinse with water and soap and rinse thoroughly. Immediately remove contaminated clothing.
In case of eye contact:
Wash the eyes with running water for a long time with the eyelids open.
In case of ingestion: Rinse mouth and then drink plenty of water.

4.2 Most important symptoms and effects, acute and subsequent
Not available.
4.3 Indication of any immediate medical attention and special treatment needed
Not available.

5. Firefighting measures

5.1 FIRE FIGHTING EQUIPMENT/Appropriate fire fighting equipment.
Use fire-extinguishing powder, foam, sand ,spray water
5.2 Specific hazards arising from the substance or mixture
In a fire may be released: nitrogen oxides (NOx), carbon monoxide (CO), sulfur dioxide (SO2)

5.3 Recommendations for firefighters
Do not try to combat fire without proper protective equipment
Wear self-contained breathing apparatus. Remove all persons away from the incident.
Special protective equipment:
Wear protective clothing fire fighting (clothing, helmets, shoes, gloves) in accordance with the European Standard EN 469.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
There is a risk of slipping of the pipelines of the product. Wear your personal protective clothing.
6.2 Environmental precautions:
Prevent the surface extension.
Do not empty into drains.
6.3 Methods and materials for restriction and cleaning:
Stop the leakage.
6.4 Reference to other sections:
For safe handling see 7. For personal protective equipment see 8. For disposal information see 13..

7. Handling and storage

7.1 Precautions for safe handling
Keep the container tightly closed.
Instructions of how to protect against fire and explosion hazard:
Special measures not required.
7.2 Conditions for safe storage, including any incompatibilities
Storage:
Stored at temperatures below 30 °C.
Compatible packaging material: stainless steel, plastic.
Instructions on storing materials together: should be kept separately from oxidizing substances.
Further statements on the conditions of storage:
No
7.3 Specific end use(s)
Not available.
Additional recommendations for the formulation of technical installations:
No other recommendation, see Chapter 7.

8. Exposure controls/personal protection

8.1 Control parameters
Components with workplace control parameters:

Component	CAS -No	Value	Control Parameters	The basis
2-Butoxyethanol	111-76-2	TWA	20 ppm 98 mg/m^3	Directive 2000/39/EC establishing a first list of indicative levels of exposure for workers
	Comments	Recognizes the possibility of a significant uptake via the Skin Indicative concentration limit		
		STEL	50 ppm	Directive 2000/39/EC establishing a first list of indicative levels of exposure for workers
		Recognizes the possibility of a significant uptake via the Skin Indicative concentration limit		
		TWA	25 ppm	indicative level of exposure for workers
		The indication Skin (S), which highlights certain chemical agents of the table in paragraph 1 of Article 3, implies the possible contribution of these chemical agents to the overall exposure of the worker and the amount that is absorbed through the skin in direct contact with them.		

Sodium metasilicate

Secondary level without consequences (DNEL) (DNEL)	oral / (mg/kg bod.)	Inhalation/ mg/m³	Through the skin
Workers - Acute – systemic effects	-	-	-
Workers - Acute - local effects	-	-	-
Workers – Long-term - systemic effects	-	6.22	1.49
Workers - Long-term - local effects	-	-	-
Consumers - Acute - systemic effects	-	-	-
Consumers - Acute - local effects	-	-	-
Consumers - Long-term - systemic effects	0.74	1.55	0.74
Consumers - Long-term - local effects	-	-	-

	Secondary level without consequences
PNEC Water (fresh)	7.5 mg/l
PNEC water (sea water)	1 mg/l
PNEC Water (interrupted)	7.5 mg/l
PNEC precipitate	Not avaliable
PNEC Territory	Not avaliable
PNEC processing factory waste	1000 mg/l
PNEC secondary poisoning (oral)	Does not apply

8.2 Exposure controls

Personal protective equipment:

General protective and sanitary measures:
During use do not eat, drink or smoke. Keep away from food, drinks and feed. Immediately remove any dirty or wet garments. Wash hands before breaks and after work. Avoid contact with eyes and skin.

Respiratory protection:
Not necessary

Hand protection:
Protective gloves: The material of the gloves should be impenetrable and resistant to the product.
Because of the lack of testing no glove material can be proposed for the product .
Select the glove material taking into account the endurance times, penetration and degradation.

Glove material: Nitrile rubber.
Choosing the right glove depends not only on the material, but also the overall quality characteristics, which vary depending on the manufacturer. EN 374.

Penetration time of glove material: For the chemicals listed below, the endurance time should be at least 480 minutes (Penetration according to EN 374). The exact endurance time of the protective gloves is given by the manufacturer and must always be respected.

Eye protection:
Tightly fitting safety goggles.

Body protection:
Use of protective clothing.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

General information	
Appearance:	Format: Light liquid
Color:	-
Odour:	characteristic
Odour threshold:	-
pH at 20°C:	13 ± 0.5
Melting point/ Liquidation:	-
Boiling point and boiling range:	-
Flashpoint:	Not self-igniting
Decomposition temperature:	Not applicable
Flammability	Not self-igniting
Explosive properties:	No risk of explosion
Risk of explosion range:	
Lower:	Not applicable
Senior:	Not applicable
Vapor pressure:	Not applicable
Density at 20°C:	1,05 g/cm³
Relative density	No data available
Vapor Density	Not applicable
Evaporation Speed	Not applicable
Solubility in water at 20° C:	Full
Partition coefficient (n-Octanol / H2O) at 23°C	No data available
Viscocity:	
Dynamic:	Not applicable
Kinematic:	Not applicable

9.2 OTHER INFORMATION

No other relevant information available.

10. Stability and reactivity

10.1 Reactivity
No information available about the reactivity of the product or its components'.

10.2 Chemical stability
Thermal decomposition / Conditions to avoid:
It does not decompose if used properly.

10.3 Possibility of hazardous reactions
No such reactions known.

10.4 Conditions to avoid
No information available.

10.5 Incompatible materials:
No information available.

11. Toxicological information

Alkane C6-C8 (even numbered), 1-sulphonic acid, sodium salt

Alkane C6-C8 (even numbered), 1-sulphonic acid, sodium salt
DL50: > 1550 mg/kg (rat)
DL50: > 2000 mg/kg (rat)

Initial reaction to the skin:
Irritating to the skin and the mucous membranes.

To the eye:
Irritating.

Sensitization:
Non-sensitizer.

Repeated dose toxicity:
NOAEL (oral/subchronic; rat): 430 mg/Kg/jour
Target organs: liver

Alcohols, C12-13- branched and linear, ethoxylated

Acute toxicity

Acute oral toxicity
Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO): LD50 rat: > 300 - 2,000 mg/kg
According to results from our own tests/available literature: Harmful if swallowed.
Acute inhalation toxicity
Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO): No such evidence available.
Acute toxicity to the skin
Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO): LD 50 rabbit: > 2,000 mg / kg
Examined Group (literature importance)
Based on the available data, the criteria for classification are not met.

Corrosion and skin irritation

Skin irritation
Alcohols, branched C12-13 and linear, ethoxylated (>5 - <15 EO):
Rabbit: non-irritant
Examined Group
According to results from our own tests/available literature
Based on the available data, the criteria for classification are not met.

Serious damage/irritation to eyes
Eye irritation
Alcohols, branched C12-13 and linear, ethoxylated (>5 - <15 EO):
Rabbit: irreversible effects in the eyes
According to results from our own tests/available literature
Examined Group
Causes severe damage to the eyes

Respiratory sensitization or skin sensitization
Sensitization
Alcohols, branched C12-13 and linear, ethoxylated (>5 - <15 EO):
Experiment to maximize (GPMT) Guinea-pig: Not sensitized
Examined Group (Literature importance)
Based on the available data, the criteria for classification are not met.

Germ cell mutagenicity
Genotoxicity in vitro
Alcohols, branched C12-13 and linear, ethoxylated (>5 - <15 EO):
In-vitro experiments in-vitro did not show mutagenic effects
Examined Group
According to results from our own tests/available literature

Genotoxicity in-vivo
Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO): in-vivo experiments did not show mutagenic effects
Examined Group (Literature importance)
Remarks
Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO):
Based on the available data, the criteria for classification are not met.

Carcinogenicity

Carcinogenicity
Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO):
The substance has been proven to be non-genotoxic and, therefore, is not expected to have carcinogenic potential.
Examined Group (bibliographical importance)

Comments
Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO):
Based on the available data, the criteria for classification are not met.

Reproduction toxicity
Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO):
Reproductive Toxicity Studies on two generations of rats
NOAEL ((parents):> 250 mg/kg (referred to in the body weight and the day.)
NOAEL (F1): > 250 mg/kg (refers to body weight and day)
NOAEL (F2):> 250 mg/kg (refers to body weight and the day)
Examined Group (Literature importance)

Remarks
Reproductive toxicity

Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO):
Based on the available data, the criteria for classification are not met.

Teratogenicity
Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO):
Rat; oral
NOAEL: > 50 mg/kg (refers to body weight and day)
NOAEL (mother): 50 mg/kg (refers to body weight and day); toxicity study in two-generation reproduction
Examined Group (Literature importance)
Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO): rat skin;
NOAEL: > 250 mg/kg (refers to the body weight and day)
NOAEL (mother): 250 mg/kg (refers to body weight and day); toxicity study in two-generation reproduction
Examined Group
(Literature importance)

Remarks - Teratogenicity
Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO):
Based on the available data, the criteria for classification are not met.

STOT- single exposure report
Remarks
Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO):
The substance or mixture is not classified as toxic to specific target organs, after single exposure.

STOT- repeated exposure report
Remarks
Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO):
The substance or mixture is not classified as toxic to specific target organs, after repeated exposure.

Repeated dose toxicity
Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO): rat; oral; 2 years
NOAEL: 50 mg/kg (referrs to body weight and the day.)
Target organs: liver, heart, kidney
Symptoms: decreased body weight gain, weight increase of organs
Examined Group
(Literature importance)

Suction toxicity
Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO): Not applicable

Toxicological information
Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO):
Toxicokinetics
Examined Group
The substance is expected to be absorbed and excreted at a rapid rate.
(Literature importance)

Sodium metasilicate

Acute toxicity
Ingestion
The material will cause chemical burns. All the symptoms of acute toxicity are due to high toxicity.
LD50 oral (rat) 1152-1349 (mg/kg body weight)

Inhalation
Dust is extremely irritating to the respiratory tract. All symptoms of acute toxicity are due to high toxicity.
LC50 inhalation (rat) > 2.06 g/m³

Contact with skin
The material will cause chemical burns. It can cause if the eye is not washed immediately.
LD50 dermal (Rat) >5000 (mg/kg body weight)

Corrosion and skin irritation Corrosive to: Skin
Corrosive to: Eyes
Serious damage / irritation of the eyes

Sensitiization No sensitization (LLNA)

Mutagenicity No evidence of toxigenicity. Negative in vitro/in vivo

Carcinogenicity There are no warnings about the structure

Reproductive toxicity There is no evidence of reproductive toxicity or developmental toxicity.

STOT-single exposure Irritating to respiratory system

STOT- repeated exposure Not listed NOAEL oral (mouse) 227 (mg/kg body weight / day)

Aspiration toxicity Not classified
Other information Not applicable

Cocoamidopropyl Betaine

Significant prices classification-LD/LC50
Oral LD50 2335 mg/kg (rat)
Skin LD50 >2000 mg/kg (rat)

Initial irritation:
On the skin: strong caustic effects on skin and mucous membranes.
In the eye: Strong caustic effects
Intense irritation and serious risk of damage to the eye damage
Sensitization: No sensitization known
Additional toxicological indications:
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version
Corrosive
Irritating
If swallowed it causes burns to the mouth and throat as well as risk of perforation of the esophagus and stomach.
Toxicokinetics, metabolism and distribution:
Not classified.
Sensitization:
Not sensitng
Repeated dose toxicity:
NOAEL (oral) of the active substance: 300 mg/kg body weight / day
Not classified.
CMR effects (carcinogenicity, mutagenicity and reproductive toxicity):
No known significant effect or critical hazard

12. Ecological information

Alkane C6-C8 (even numbered), 1-sulphonic acid, sodium salt

Fish, CL50: > 100 mg/l
Daphnia, CE50: > 100 mg/l
Alga, NOEC: 6.25 mg/l

Alcohols, C12-13- branched and linear, ethoxylated

12.1 Toxicity

Toxicity to fish
Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO):
LC50 (96 h) Cyprinus carpio (Cyprinus): > 1 - 10 mg/l flow test; OECD Test Guideline 203
Results of our own tests/available literature
Examined Group

Toxicity to fish - Chronic toxicity
Alcohols, C12-13- branched and linear, ethoxylated (>5 - <15 EO):
EC10 Pimephales promelas (Fathead carp): 0.21 mg/l;
Mortality (Bibliographic significance)
Examined Group

Toxicity to daphnia and other aquatic molluscs
Alcohols, branched C12-13 and linear, ethoxylated (>5 - <15 EO):
EC50 (48 h) Daphnia magna: > 1 - 10 mg/l; static test?
OECD TG 202
Results of our own tests/ bibliographic values
Examined Group

Toxicity to daphnia and other aquatic molluscs - Chronic toxicity
Alcohols, branched C12-13 and linear, ethoxylated (> 5 - <15 EO):
EC10 Daphnia magna: 0.36 mg / l;
Reproduction test? OECD TG 211; (bibliographic significance)
Examined Group

Toxicity to aquatic plants
Alcohols, branched C12-13 and linear, ethoxylated (> 5 - <15 EO):
EC50 (72 h) Desmodesmus subspicatus (green algae):> 1-10 mg / l; ; static test?
OECD TG 201; results of our own tests / bibliographic values
Examined Group

Toxicity to bacteria
Alcohols, branched C12-13 and linear, ethoxylated (> 5 - <15 EO):
EC50 activated sludge: 140 mg / l; Obstruction of breathing
Examined Group(Bibliographical significance)

Toxicity to terrestrial plants
Alcohols, branched C12-13 and linear, ethoxylated (> 5 - <15 EO):
vegetation, growth; NOEC: 10 mg / kg; Lepidium sativum (cardamom); OECD TG 208
results of our own tests / bibliographic values
Examined group

Toxicity to other land non-mammals
Alcohols, branched C12-13 and linear, ethoxylated (> 5 - <15 EO):
the study is scientifically unjustified
Justification:
It is easily biodegradable.

12.2 Persistence and degradability

Biodegradability
Alcohols, branched C12-13 and linear, ethoxylated (> 5 - <15 EO):
It is biologically easily degraded. > 60%; 28 d; aerobic?
OECD 301 B Guidelines
results of our own tests / bibliographic values
Examined group

12.3 Possibility of bioaccumulation

Bioaccumulation
Alcohols, branched C12-13 and linear, ethoxylated (> 5 - <15 EO): Bioaccumulation is unlikely.
(bibliographic significance)

12.4 Mobility on the ground

Mobility
Alcohols, branched C12-13 and linear, ethoxylated (> 5 - <15 EO):
Absorption / Soil Koc: & gt; 5000; QSAR (bibliographic significance) stabilized strong adsorption to the soil

12.5 Results of the PBT and vPvB assessment

Results of the PBT assessment
Alcohols, branched C12-13 and linear, ethoxylated (> 5 - <15 EO):
Based on the available data, the classification criteria are not met.

12.6 Other adverse effects

General suggestions
Alcohols, branched C12-13 and linear, ethoxylated (> 5 - <15 EO):
Harmful to aquatic organisms, with long-lasting effects.
Concerning the ingredient disodium metasilicate
Fish Brachydanio(Brachydanio rerio) EC50 (96 hours) 210 mg/l
Aquatic invertebrates (Daphnia the large) EC50 (48 hours) 1700 mg/l (in proportion)
Concerning the ingredient Cocoamidopropyl Betaine
Aquatic toxicity
EC10 0,135 mg/l (freshwater fish)
LC50 (static) 1,9 mg/l (freshwater invertebrates)
1,11 mg/l (freshwater fish)

12.2 Persistence and degradability

Easily biodegradable according to OECD Guideline 301 B, OECD 301C, OECD 301 D and OECD 301F.

12.3 Bioaccumulative potential
Low

12.4 Soil Mobility
The substance is readily dispersible in water and readily biodegradable. Further ecological indications:
General instructions: not allowed to penetrate into groundwater, discharge it into the aquatic environment undiluted.

12.5 Results of the PBT and vPvB assessment
PBT: Not classified.
vPvB: Not classified.
12.6 Other adverse effects
No other relevant information available.

13. Disposal considerations

13.1 Waste management methods

Recommendation:

It must not be deposited with common waste.

Uncleaned packaging:

Recommendation:

Disposal should be in accordance with official regulations.

Cleaning agent: Water**.**.

14. Transport information

The transport of the product is safe in the company's containers and does not require additional precautions.

14.1 UN Number	**Not applicable.**
ADR, ADN, IMDG, IATA	**–**
14.2 Proper shipping name	**Not applicable.**
ADR, ADN, IMDG, IATA	**–**
14.3 Transport hazard class/classes	**Not applicable.**
ADR, ADN, IMDG, IATA	
Class	**–**
14.4 Packing group	**Not applicable.**
ADR, IMDG, IATA	**–**
14.5 Environmental hazards:	
Environmentally hazardous:	**No**

14.6 Special precautions for the user **Not applicable**

15. Regulatory information

15.1 regulations/legislation regarding safety, health and the environment for the substance or mixture

Ingredients according to the Detergrent Legislation 648/2004/EC
It contains among others below 5% anionic, non-ionic and amphoteric surfactants.

15.2 Chemical safety assessment
A chemical safety assessment for the mixture has not been carried out.

16. Other information

Full text of H and EUH phrases mentioned in Section 3

H319 Causes severe eye irritation.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes severe eye damage
H412 Harmful to aquatic life with long lasting effects.
H302 Harmful if swallowed.
H335 May cause respiratory irritation.
H290 May corrode metals.
H312 Harmful in contact with skin.
H332 Harmful if inhaled.

Footnotes and acronyms:

DNEL - Derived No Effect Level
EUH - CLP Special Risks Declaration
ABT - Persistent, Bioaccumulative and Toxic
PNEC - Predicted No Effect Concentration
REACH number - REACH registration number
vPvB - very persistent and very bioaccumulative

The above information concern only the specific product of our company based on our current level of knowledge and is not a guarantee of any specific product features.